

The Groundwire

TYLER AMATEUR RADIO CLUB

March 10, 2011

PRESIDENT'S MESSAGE



NEW EMCOMM VAN STATUS

I was pleased & proud as a peacock at the turnout for the new EmComm van work day held last month. As detailed in the following excerpt from the new EmComm work diary I've been keeping, attendance was great and the amount of work accomplished was tremendous!

While the EmComm van is technically an ETECS (East Texas Emergency Communications Service, Inc.) asset, ETECS and the TARC have many things in common, especially members. Everyone who participated in last month's work day is a TARC member, so as I brag about the new EmComm van, I am bragging about the TARC as well!

73!

Mark, W5MCT

P.S. Weather permitting, I'm planning another work day for the EmComm van on March 19. If time permits we may have a chance to play on the radios as well!

Excerpt from W5MCT's ETECS Van 2.0 Log

Saturday, February 26, 2011

Sixteen operators contributed as we worked on the new EmComm van. Fourteen people met at the Kettle restaurant for KD5UCY's Hams and Eggs breakfast social before proceeding to Bob Sanford's house.

The group began working around 9:30 AM. Those operators who participated include:

- Galen, KD5KIZ
- Forest, KF5ARZ
- Lyle, K5LCM
- Bob J., AG5X
- Bob S., KC5SMC
- Art, K5LXK
- Brandon, KF5ASA
- J. W., KE5WJU
- John N., N9JN
- Don, K5LOW
- Clif, KD5UCY
- John F., KC5JDR
- Roy, WJ5Z
- Elaine, KF5CNN
- Mark, W5MCT

The Tyler Amateur Radio Club graciously provided pizza for lunch; thanks to Elaine, KF5CNN, for delivering the welcome sustenance. Work concluded around 4:00 PM.

Some of the tasks performed were:

- Generator runs great after a very trying effort to install new carburetor... Thanks to our local VE test group for donating a new carburetor. Generator testing showed excellent generating capacity & quiet, smooth-running operation.
- Air conditioner swap was successful. A/C in new van runs nice and cold.
- Interior lights - numerous bulbs replaced; all three banks of lights in the operating area fully operational.
- Exterior lights - numerous external lights were not operational at the start of the day. Art, K5LXK, and his crew worked all day addressing the exterior light issues, many of which turned out to be grounding problems associated with an aging (more than 25-year-old) vehicle chassis. By the end of the day, every light was operational.
- Radio & antenna transfers and installations were complete. We presently have seven radios operational:
 - Dual band 2 meter and 440 MHz radio
 - 2 meter radio
 - All-band, all-mode amateur radio service transceiver
 - Smith County 800 MHz public service radio
 - Public service VHF radio
 - Public Service UHF radio for the Mall
 - 2 meter radio in the cab
- Transfer of much of the supplies & disposable inventory (papers and pens)

- Replacement of three large gel-cell batteries of unknown condition with two new deep-cycle lead-acid batteries
- We attempted to use some of the old van cab interior façade to replace the façade in new van, but it did not fit

Some of the next tasks include:

- Diagnose & repair stuck emergency brake - **this is the only critical-path item that must be addressed before van can be used at Beauty and the Beast bicycle race next month**
- Flush and sanitize the fresh water system
- Final move-out of items from old van
- Generator filter & oil change
- Corrosion abatement program on lift-up side panel & opening
- Acquire & Install a couple of small bulletin boards
- Need a good set of jumper cables
- Need a good, compact battery charger & engine starter
- Trickle charger for battery maintenance
- Van really needs a new engine battery; current one is under-sized
- Acquire & install new cab interior façade
- Signage & exterior clean-up (in the works)
- Interior labels & documentation
- We are also in the process of acquiring a used pneumatic mast from a local TV station. We are considering installing this mast in the new van.
- Disposition of old van

RECENT EVENTS

TARC Board Meetings

There has been no Board meeting since the last newsletter.

Notes From The February Club Meeting

The February meeting was devoted to the Club's annual hosting of Skywarn® training by the Shreveport, LA office of the National Weather Service (NWS). This year, both the basic and advanced classes were held. Each was conducted by Mr. Bill Parker, Senior Meteorologist, who did an outstanding job. Nearly sixty people attended each class with visitors outnumbering Club members. Members brought food items aplenty so no one went without something to eat which was a positive thing indeed given that classes started promptly at 5:30 PM and ran almost continuously until nearly 9:00 PM. Training certificates are available to all attendees who signed in at [this](#) NWS address.

In addition to the training sessions, the Club netted one new member and five ham-related visitors. Joining TARC is Mr. Bill Appell, W5WMA, who resides in Hideway. Welcome Bill! Our visitors were Larry Bradford (KF5JUJ) and his spouse Terry from Bogata; Max Evans (KD5AVY) from Whitehouse; Paul Taft (KF5HJP) from Tyler and Benny Swafford also from Tyler. Our thanks to you all for attending and we hope to see you again, soon!

Monday 2M Net Participation

Check-in statistics for the latest series of TARC Monday night nets were as follows:

Net Date	Net Control	Check Ins	Traffic
2-14	KF5IYL	35	2
2-21	K5LOW	39	5
2-28	KF5CNN	41	5
3-7	AG5X	41	4

The Club's weekly two meter net is held each Monday at 8:00 PM on the Club's K5TYR repeater, (147.00 MHz, negative offset and 110.9 PL tone). It continues to be one of the most active VHF nets in East Texas. The net is open to all licensed hams. More information about this and other area nets can be found [here](#).

VE Testing

Testing for new and upgraded amateur radio licenses is conducted by local area VEs on the ***second Sunday of each month at 2:00 PM*** at the American Red Cross building at 320 E. Rieck Road in Tyler. Any schedule changes will be announced on the TARC two meter net (details above). Mac McGraw, AE5FH, is the contact VE. You can [e-mail](#) him or call him at 903-839-7916 for more information.

The next session will be on March 13th. Those wishing to take/upgrade to General are reminded that the question pool will change on July 1st.

UPCOMING EVENTS

Hamfests/Tailgate Events

Daingerfield - The Daingerfield ARC will host a tailgate sale at Daingerfield Park on April 9th. Sales start at 7AM.

Breakfast Group

The TARC "Hams & Eggs" breakfast social is

nominally held on the *fourth Saturday* morning of the month at The Kettle restaurant on the north side of the Loop 323 in Tyler just across from the Brookshire's plant. Holidays or other events may effect a re-schedule. The unofficial meeting time is 7:30 but be sure and arrive at least by 8:00.

*****Exception*****

This month, because the B&B bicycle race is on the fourth Saturday, the "Hams & Eggs" breakfast group will meet on the *third* Saturday, the 19th. Still, same time, same location.

Public Service

The annual "Beauty and the Beast (B&B) bicycle race is scheduled for Saturday, March 26th. The time and route will be the same as last year's event. TARC members will again provide communications, water stop monitoring and SAG¹ support for injured or "depleted" riders. It takes a lot of Club participation to properly do the job we've been entrusted to do so *please* contact Art Sharp (K5LXK) and sign up. If you've supported any of the previous B&B events, you know that it's a lot of fun and very rewarding as well. If you haven't, here's your chance to find out for yourselves. (Plus, you'll get a really cool T-shirt!)

A Van-tastic Opportunity

As Mark noted, looking ahead, there will be several, ongoing opportunities for any and all interested Club members (and guests)

¹ "Snatch and Grab"

to participate in the re-conditioning of the "new" van that ETECS/TARC has been given. Listen for announcements of upcoming work sessions on the Club's Monday night net and e-mail announcements as well. No previous experience is required and all skill levels, or lack thereof, are welcome. There's plenty to do and something for everyone to contribute.

These sessions will be *excellent* opportunities for those members that haven't been as involved with Club leadership as they could've been to make up some of that deficiency. "Just do it!"

Monthly Club Meetings

The Tyler Amateur Radio Club meets on the third Thursday of the month for fellowship and enrichment of our ham radio experience. Meetings are held at the Shiloh Road Church Of Christ, corner of Shiloh Road and Paluxy in Tyler at 7:00PM. Club meetings and membership are open to all interested persons, with or without an amateur radio license. There are usually cookies, candies, sodas etc. to share *but only* if members or guests bring them.

The planned TARC meeting agendas for the next two months are as follows:

- Appointment of the Election Nominating Committee for the 2011-2012 officers
- Nominating Committee report; HOTY² nominations

² "Ham Of The Year"

TECH TALK

This portion of the newsletter provides a venue for technical topics of general interest to all hams. Broad topics such as equipment, antennas, feed lines, connectors, baluns, interference, etc. are all part and parcel of any ham activity. The purpose is to provide some basic information along with references and links for further reading and study. Here's an opportunity to "e-Elmer" each other - let's use it! Submit your contributions to us [here](#).

Scoping It Out

The latest equipment acquisition here at Editorville is an oscilloscope - a (used) Tektronix Model 475. It's primary targeted usage is aiding in the electrical restoration of tube-type communications receivers (I have a "thing" about radios that glow in the dark!) Bought off of eBay for a fraction of its retail value, it's already taught me something about some of the other bench equipment that I have, namely my AF and RF signal generators.

For example, my AF generator is capable of producing signals in either sine or square waves. While the sine waves look "perfect", the square waves exhibit some artifacts - like being something less than absolutely square. Nothing that would bother me for my usage, but interesting to know about just the same. On the RF side, like on the AF side, not only can I observe the generated wave but also the modulation that the generator or an external source adds as well.

Knowing what the electrical characteristics of the input to a radio looks like gives a big "leg up" on knowing what should be coming out of the other side of each of its stages. If those expectations aren't met, it's a lot easier to know where to start looking for the problem. For example, I can tell if the signal is all AC or if there's a DC component to the output signal which might indicate a "leaky" coupling capacitor.

O'scopes aren't just for "RF stuff". They're widely used in the audio world particularly in the realm of amplifiers. Professional musicians can be r-e-a-l-l-y picky about the "waves" their equipment puts out. O'scopes let them actually *see* the waveforms. (Talk about "picky", I recently bought some garden variety electrolytic filter caps for about \$1 each. The same size and rating caps for audiophiles cost upwards if \$12 each!)

If you'd like to know more about oscilloscopes (and if you don't know very much, you should), a really good tutorial on the subject is available freebies from Tektronix, a world-class leader in the manufacturing of the things. Download your PDF copy [here](#). ★★★★★

THIS 'n THAT

No More Calls, We Have A Winner!

It's our great pleasure to announce that J.W. Smith (KE5WJU) has answered the call and stepped forward to be our guiding light for this year's **Field Day** exercise. He's probably a little nervous about the assignment but we have full faith and confidence in JW's ability to bring this off with aplomb (or any other fruit of his

choosing). **Please** follow his lead and get in touch with him and offer your support. You'll be glad you did.

You might be ...

... an Amateur Radio operator, if:

1. You have ever bought black electrical tape in ten packs. *(Check!)*

2. You have stripped hook-up wire with your teeth. *(Check!)*

3. You have told your child, "One day, all this will be yours," and he or she did not respond at all.

4. You would rather help another Ham friend to hook up new equipment, or to put up a new tower, than to mow your own lawn. *(Check!)*

5. You have grabbed the wrong end of a hot soldering iron. *(Almost Check!)*

6. You have gotten an RF burn from your own antenna. *(Check!)*

7. You have given out RST reports while you were on the telephone. *(Doesn't everyone?)*

8. When the microphones or visual aids at a meeting did not work, you rushed up to the front to fix them. *(Check!)*

9. You have told the XYL, when she noticed a new rig in the shack, "Why, that has been there for years."

10. You have set your watch to UTC only. *(Only temporarily.)*

11. You have had to patch your roof after an antenna project fell onto it. *(Actually it was a neighbor's roof.)*

12. You have put a GPS tracker in the XYL's car or on the riding mower, just so you could watch it on APRS.

13. You have tapped out "CQ" or "HI" on the car horn in Morse Code to another Ham.

14. Your teenager has refused to ride in your car because it looks like a porcupine.

15. You know the Latitude, Longitude, and Elevation of your home QTH.

16. You have gone into the local Radio Shack store, and the store clerk has asked you where something is and how it works. *(Check!)*

17. You have answered the telephone with your call sign, and then finished the conversation with "73" and your call sign. *(Close, after a long night of chasing DX.)*

18. You have looked for antennas, radios, and Morse Code in movies and television shows. *(Check!)*

19. When you look at anything made of wire or metal tubing, you wonder if it could be used as an antenna. *(Double-Check!)*

20. Your call sign is listed on one or more of your hats, T-shirts, or other garments. *(Check!)*

21. You regularly carry one or more tools in your pockets at any given time. *(And your point is ...)*

22. When any kind of batteries go on sale, you get really excited.

23. When you look at a barbecue grill, it creates ideas about ground plane antennas.

24. You have designated all your friends as Hams or Non-Hams.

25. You have referred to your Ham friends by their call sign suffixes instead of their real names. (*Check!*)

26. You have intentionally confused Non-Hams by telling them that the only things you talk about on the air are pork products. (*Not pork, goats.*)

27. You have intentionally scared Non-Hams with the word "RADIATION"! (*Yeah, and open your eyes really wide when you say it!*)

28. You have looked at telephone poles and power line towers as potential antenna supports. (*Only if they've been abandoned.*)

29. You have thought you were still hearing CW tones, even when your Ham radio was off. (*Double-Check!*)

30. Your Go-Bag has more clothes in it than your dresser does.

31. You have a SKYWARN sticker on your back window. (*Soon.*)

32. Your significant other sits in the back seat, and your radios ride in the front. (*Yeah, right!*)

33. Your neighbors wonder if you are a "Narc" (narcotics officer), a Spy, or a Federal Agent. (*No, they just think I'm weird.*)

34. The cops pull you over because they want to see the inside of your car.

35. Your cell-phone's ring tone is your Ham radio call sign, sent in Morse Code. (*You can do that?*)

Recommended Reading

Frankly, I look upon the FCC's current method of granting amateur radio licenses

with considerable disdain. This is wrought not only because I'm "old school" (and proud of it!) but also because, in college, I saw many of my contemporaries get as good or better grades than I simply because they were as good or better "memorizers" than I was a "studier". Typically, a day or two after an exam, they couldn't recall even "D-level" recognition of the material much less any real working knowledge of same. I feel the current testing format encourages "cramming", a.k.a. just memorizing questions and answers long enough to score a passing grade on the tests.

Some of the statements I hear on the air today both on repeaters and HF only serve to bolster that opinion. For example: "I need to get a new antenna because the one I'm using doesn't have enough SWRs." (No, I'm *not* kidding!)

I don't want anyone to be able to accuse any of my fellow TARC members of falling into that "crammer" category. Accordingly, I urge all to continue reading and *studying* about all the technical aspects of our shared hobby, especially those that interest them most, e.g. antennas, receivers, circuitry, power, grounding, etc. to get a good foundation into not only the "whats" (i.e. "crammer-level") but also the "whys" and the "hows" (where understanding and application begins). To that end, I offer a few PDF documents as a good place to *start* to learn about a few of the aspects of building and properly operating a useful and safe shack. These short documents cover [lightening protection](#), [RF grounding](#) and the term "[decibel](#)" (dB).

RANDOM THOUGHTS

- What if there were no hypothetical questions?
- Is there another word for synonym?
- If you try to fail and succeed, which have you done?

ITEMS FOR SALE

TARC members with items that they'd like to sell (or swap) can have them listed on the Club's website by [e-mailing](#) a full description of them along with price (or swap) targets to the Club's webmaster Gaylen Gage (KD5KIZ). A list and description of any items currently for sale or trade can be found on the Club's website [here](#). Since the list changes over time, it's best to check it out each month.

FROM THE CNN DESK ...

Call To Service ... **Answered!**



Elaine – KF5CNN

was also the first large gathering of TARC members to pitch in and go to work getting the “new” ETECS van to an operational status. While I was not able to join in the

physical labor, I did manage to participate by bringing several pizzas to the work site (Bob & Charlott's home) for the workers' lunch.

By all accounts, turnout at both the breakfast gathering and the work party far exceeded all expectations. At peak, there were 16 busy TARC members (and not all of them from “the usual suspects” list either) exchanging A/C units between the “old” and “new” vans, installing a new carburetor in the new van's generator, repairing or installing new lights and lighting on the van, etc. etc. etc. I don't think anyone made an exact count, but there must have been easily over 90 man-hours of effort performed that day. It was a wonderful event to behold and made me proud to be a part of a group that gives so willingly with absolutely no thought of personal gain attached. ***Well done, you guys!*** (See attached pages for some pictures Bob took of the work in progress.)

A ***Special Thanks*** to the local VE group who donated the funds for the new carburetor for the van's generator.

Come to the Club meeting, wear your badge and bring a visitor and/or something to share.

Bob – AG5X & Elaine – KF5CNN
[Co-Editors](#)